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EXAMINER

MILLS, DONALD L

ART UNIT PAPER NUMBER

2616

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/827,352

Applicant(s)

MUSSMAN ET AL.

Examiner

Donald L. Mills

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the claim recites *the directory gatekeeper notifying the inbound gatekeeper* (See claim 1, line 15.) It is unclear from claim whether “directory” and “inbound” gatekeepers are resource management gatekeepers, gateway resources, or another type of gateway. Further clarification and explanation is requested.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 10-16, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennefeld et al. (EP 1014633), hereinafter referred to as Bennefeld, in view of Wolff (US 6,067,545).

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Referring to claims 1, 10 and 19, Bennefeld discloses scalable gatekeepers in an internet telephony system and a method of operation, comprising *a directory gatekeeper for performing routing of calls through a plurality of gateway resource's* (Referring to Figures 4A-5B, a root gatekeeper that routes packets through a packet network. See Abstract,) *the directory gatekeeper comprising:*

*One or more communication devices providing access to a plurality of resource management gatekeepers* (Referring to Figures 4A-5C, the root gatekeeper can communicate with the gatekeepers that perform resource management. See Abstract,) *each resource management gatekeeper associated with one or more of the plurality of gateway resources* (Referring to Figures 4A-5C, each gatekeeper has an associated RLMU which is used for load balancing. See Abstract;)

*A processor operable to send a request to a selected resource management gatekeeper to initiate a call through a gateway resource associated with the selected resource management gatekeeper* (Referring to Figures 4A-5C, the root gatekeeper receives requests, sent by a gatekeeper, and distributes subscriber load among the gatekeepers. See column 10, paragraph 0043 and column 12, paragraphs 0049-0052.)

Bennefeld does not disclose *dynamic alternate routing for directing calls through available gateway resources*.

Although Bennefeld does not teach dynamic alternate routing, instead Bennefeld teaches distributing subscriber load during the Gatekeeper discovery and registration process. However, Wolff teaches a load rebalancing method, which can dynamically rebalance itself to optimize

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throughput by migrating client I/O request from over utilized pathways to underutilized pathways in gateways during operation (See column 4, lines 50-60 and column 20, lines 19-23.)

It would have been obvious to one skilled in the art at the time of the invention to implement the dynamic load rebalancing of Wolff in the system of Bennefeld. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to dynamically distribute subscriber load among many gatekeepers as taught by Bennefeld (See column 2, lines 50-52.). Note, regarding claim 10, Wolff teaches a resource management module 186 which manages the information about distinct resources available on the network and connection information associated with each (See column 12, lines 57-69.) Note regarding claim 19, Wolff teaches upon the detection of path failure marking the path as failed (See column 19, lines 9-11.)

Referring to claim 2, Bennefeld discloses *one of the one or more communication devices provides access to a packet-based network* (Referring to Figure 1, the root gatekeeper is coupled to the Internet.)

Referring to claim 3, Bennefeld discloses *the packet-based network is an Internet protocol (IP) network* (Referring to Figure 1, the root gatekeeper is coupled to the Internet.)

Referring to claim 4, Bennefeld discloses *the one or more communication devices provides access to the public switched telephone network (PSTN)* (Referring to Figure 1, the root gateway is coupled to the PSTN.)

Referring to claims 5 and 15 as discussed in the rejection of claims 1 and 10, Bennefeld and Wolff teach all of the claim limitations of claims 1 and 10 (parent claims).

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Bennefeld does not disclose *performing alternate routing of calls by identifying one or more candidate routes and selection available ones of the routes.*

Wolff teaches a load rebalancing method, which can dynamically rebalance itself to optimize throughput by migrating client I/O request from over utilized pathways to underutilized pathways in gateways during operation (See column 4, lines 50-60 and column 20, lines 19-23.) Wolff also teaches a resource management module 186 which manages the information about distinct resources available on the network and connection information associated with each (See column 12, lines 57-69.)

It would have been obvious to one skilled in the art at the time of the invention to implement the dynamic load rebalancing of Wolff in the system of Bennefeld. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to dynamically distribute subscriber load among many gatekeepers as taught by Bennefeld (See column 2, lines 50-52.)

Referring to claim 6 as discussed in the rejection of claims 1 and 10, Bennefeld and Wolff teach all of the claim limitations of claims 1 and 10 (parent claims).

Bennefeld does not disclose *performing alternate routing of calls if none of the candidate routes are available, sending a response to the received further includes: request indicating that the request can not be completed.*

Wolff teaches a load rebalancing method, which can dynamically rebalance itself to optimize throughput by migrating client I/O request from over utilized pathways to underutilized pathways in gateways during operation (See column 4, lines 50-60 and column 20, lines 19-23.)

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Wolff further teaches upon the detection of path failure marking the path as failed (See column 19, lines 9-11.)

It would have been obvious to one skilled in the art at the time of the invention to implement the dynamic load rebalancing of Wolff in the system of Bennefeld. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to dynamically distribute subscriber load among many gatekeepers as taught by Bennefeld (See column 2, lines 50-52.).

Referring to claims 7 and 16 as discussed in the rejection of claims 1 and 10, Bennefeld and Wolff teach all of the claim limitations of claims 1 and 10 (parent claims).

Bennefeld does not disclose *selecting a candidate route from the one or more candidate routes includes selecting the least cost route as the candidate route.*

It would have been obvious to one skilled in the art at the time of the invention to implement this feature into Bennefeld because choosing the least cost route would thereby reduce the costs of routing the call, thereby improving efficiency and reducing resource usage.

Referring to claims 11 and 20 as discussed in the rejection of claims 10 and 19, Bennefeld and Wolff teach all of the claim limitations of claims 1 and 10 (parent claims).

Bennefeld does not disclose *selecting a route from the list of possible routes by querying another resource management gatekeeper to dynamically determine availability of gateway resources associated with the selected route.*

Wolff teaches a load rebalancing method, which can dynamically rebalance itself to optimize throughput by migrating client I/O request from over utilized pathways to underutilized pathways in gateways during operation (See column 4, lines 50-60 and column 20, lines 19-23.)

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Wolff also teaches a resource management module 186 which manages the information about distinct resources available on the network and connection information associated with each (See column 12, lines 57-69.)

It would have been obvious to one skilled in the art at the time of the invention to implement the dynamic load rebalancing of Wolff in the system of Bennefeld with multiple resource managers. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to dynamically distribute subscriber load among many distributed gatekeepers as taught by Bennefeld (See column 2, lines 50-52.)

Referring to claims 12 and 21 as discussed in the rejection of claims 10 and 19, Bennefeld and Wolff teach all of the claim limitations of claims 1 and 10 (parent claims).

Bennefeld does not disclose that *the request includes a telephone number and a numbering plan area (NPA)*.

However, since the communication between the subscribers of Bennefeld are using telephones and they can be in different area codes (i.e.. NPA's), it would have been obvious to one skilled in the art at the time of the invention to implement this feature into the system of Bennefeld. One of ordinary skill in the art at the time of the invention would have been motivated to do so because the use of these numbers are established standards, thus the system would conform to well-known standards.

Referring to claims 13 and 22 as discussed in the rejection of claims 10 and 19, Bennefeld and Wolff teach all of the claim limitations of claims 1 and 10 (parent claims).

Bennefeld does not disclose *the request to initiate a call is an H.323 admission request (ARQ) message*.



However, H.323 ARQ messages are established standardized messages. Thus, it would have been obvious to one skilled in the art at the time of the invention to implement this feature into the system of Bennefeld. One of ordinary skill in the art at the time of the invention would have been motivated to do so because the use of these numbers are established standards, thus the system would conform to well-known standards.

Referring to claims 14 and 23, Bennefeld discloses that *each route in the list of routes is associated with a resource management gatekeeper* (Referring to Figures 1-3A, the gatekeepers manage all system resources and the routing of information through the routes of the system, which are directly related to the system resources.)

5. Claims 8, 9, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennefeld in view of Wolff and further in view of Harada et al. (USON 5,956,339), hereinafter referred to as Harada.

Referring to claims 8, 9, 17, and 18 as discussed in the rejection of claims 10 and 19, Bennefeld and Wolff teach all of the claim limitations of claims 1 and 10 (parent claims).

Bennefeld does not disclose that the selecting includes *selecting a candidate route from the one or more candidate routes at a predetermined ratio*.

However, Harada teaches a system wherein a routing manager (RMG) selects routes based on a backup ratio (see column 18 lines 3 1-33)).

Furthermore, it would have been obvious to one skilled in the art at the time of the invention to implement this feature into the system of Bennefeld because the backup ratio gives an indication of the resources available in case of failure thus considering them when making the

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route selection would improve the reliability of the Bennefeld system. Note regarding claim 9, all the routes in Bennefeld have a substantially equal likelihood of being chosen (i.e. they are either chosen or not, thus there is a 50% chance of being chosen).

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Donald L Mills

*Dem*

April 25, 2006

*Seema S. Rao*  
SEEMA S. RAO 5/11/06

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